



**Product:** RSP20-8TX/3SFP-2A

**Configurator:** RSP20-8TX/3SFP-2A

### Configurator Description

The RSP series features hardened, compact managed industrial DIN rail switches with Fast and Gigabit speed options. These switches support comprehensive redundancy protocols like PRP (Parallel Redundancy Protocol), HSR (High-availability Seamless Redundancy), DLR (Device Level Ring) and FuseNet™ and provide an optimum degree of flexibility with several thousand variants.

### Technical Specifications

#### Product description

|                        |   |
|------------------------|---|
| Type                   | RSP20-8TX/3SFP-2A (Product Code: RSP20-11003Z6TT-SCCY9HSE2AXX.X.XX)       |
| Description            | Managed Industrial Switch for DIN Rail, fanless design Fast Ethernet Type |
| Software Version       | HiOS 10.0.00  |
| Part Number            | 942053018   |
| Port type and quantity | 11 Ports in total: 8 x 10/100BASE TX / RJ45; 3 x SFP slot FE (100 Mbit/s) |

#### More Interfaces

|                                |  |
|--------------------------------|--|
| Power supply/signaling contact | 2 x plug-in terminal block, 2-pin; 1 x plug-in terminal block, 2-pin |
| V.24 interface                 | 1 x RJ11 socket  |
| SD-card slot                   | 1 x SD card slot to connect the auto configuration adapter ACA31     |

#### Network size - length of cable

|   |   |
|---|---|
| Twisted pair (TP)                                       | 0-100   |
| Single mode fiber (SM) 9/125 µm                         | see SFP fiber module M-SFP-xx / M-Fast SFP-xx |
| Single mode fiber (LH) 9/125 µm (long haul transceiver) | see SFP fiber module M-SFP-xx / M-Fast SFP-xx |
| Multimode fiber (MM) 50/125 µm                          | see SFP fiber module M-SFP-xx / M-Fast SFP-xx |
| Multimode fiber (MM) 62.5/125 µm                        | see SFP fiber module M-SFP-xx / M-Fast SFP-xx |

#### Network size - cascading

|                        |     |
|------------------------|-----|
| Line - / star topology | any |
|------------------------|-----|

#### Power requirements

|                            |                               |
|----------------------------|-------------------------------|
| Operating Voltage          | 2 x 24/36/48 VDC (18 -60 VDC) |
| Power consumption          | 15 W                          |
| Power output in BTU (IT)/h | 51                            |

#### Software

|           |  |
|-----------|--|
| Switching | Independent VLAN Learning, Fast Aging, Static Unicast/Multicast Address Entries, QoS / Port Prioritization (802.1D/p), TOS/DSCP Prioritization, Interface Trust Mode, CoS Queue Management, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egress Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), VLAN Unaware Mode, Voice VLAN, IGMP Snooping/Querier per VLAN (v1/v2/v3), Unknown Multicast Filtering, Multiple VLAN Registration Protocol (MVRP), Multiple MAC Registration Protocol (MMRP), Multiple Registration Protocol (MRP) IP Ingress DiffServ Classification and Policing, Protocol-based VLAN, GARP VLAN Registration Protocol (GVRP), MAC-based VLAN, IP subnet-based VLAN, GARP Multicast Registration Protocol (GMRP) , Layer 2 Loop Protection , Double VLAN Tagging |
|-----------|--|

|                      |   |
|----------------------|---|
| Redundancy           | Link Aggregation with LACP, Link Backup, Media Redundancy Protocol (MRP) (IEC62439-2), RSTP 802.1D-2004 (IEC62439-1), RSTP Guards HIPER-Ring (Ring Switch), HIPER-Ring over Link Aggregation, MRP over Link Aggregation, Redundant Network Coupling, Sub Ring Manager, MSTP (802.1Q)  |
| Management           | Dual Software Image Support, TFTP, SFTP. SCP. LLDP (802.1AB), LLDP-MED, SSHv2, V.24, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet DNS Client OPC-UA Server   |
| Diagnostics          | Management Address Conflict Detection, MAC Notification, Signal Contact, Device Status Indication, TCPDump, LEDs, Syslog, Persistent Logging on ACA, Port Monitoring with Auto-Disable, Link Flap Detection, Overload Detection, Duplex Mismatch Detection, Link Speed and Duplex Monitoring, RMON (1,2,3,9), Port Mirroring 1:1, Port Mirroring 8:1, Port Mirroring N:1, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog, Switch Dump, Snapshot Configuration Feature Email Notification, RSPAN, SFLOW, VLAN Mirroring   |
| Configuration        | Automatic Configuration Undo (roll-back), Configuration Fingerprint, Text-based Configuration File (XML), BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, DHCP Server: Pools per VLAN, AutoConfiguration Adapter ACA31 (SD card), HiDiscovery, DHCP Relay with Option 82, Command Line Interface (CLI), CLI Scripting, Full-featured MIB Support, Web-based Management, Context-sensitive Help  |
| Security             | MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, Integrated Authentication Server (IAS), RADIUS VLAN Assignment, Denial-of-Service Prevention, VLAN-based ACL, Ingress VLAN-based ACL, Basic ACL, Access to Management restricted by VLAN, Device Security Indication, Audit Trail, CLI Logging, HTTPS Certificate Management, Restricted Management Access, Appropriate Use Banner, Configurable Password Policy, Configurable Number of Login Attempts, SNMP Logging, Multiple Privilege Levels, Local User Management, Remote Authentication via RADIUS, User Account Locking RADIUS Policy Assignment, Multi-Client Authentication per Port, MAC Authentication Bypass, DHCP Snooping, Dynamic ARP Inspection, LDAP, Ingress MAC-based ACL, Ingress IPv4-based ACL, Time-based ACL, ACL Flow-based Limiting Password change on first login |
| Time synchronisation | PTPv2 Transparent Clock two-step, PTPv2 Boundary Clock, Buffered Real Time Clock, SNTP Client, SNTP Server  |
| Industrial Profiles  | EtherNet/IP Protocol, IEC61850 Protocol (MMS Server, Switch Model), ModbusTCP, PROFINET IO Protocol   |
| Miscellaneous        | Manual Cable Crossing, Port Power Down  |

## Ambient conditions

|                                    |            |
|------------------------------------|------------|
| Operating temperature              | 0-+60 °C   |
| Storage/transport temperature      | -40-+70 °C |
| Relative humidity (non-condensing) | 10-95 %    |

## Mechanical construction

|                    |                         |
|--------------------|-------------------------|
| Dimensions (WxHxD) | 90 mm x 164 mm x 120 mm |
| Weight             | 1200 g                  |
| Mounting           | DIN rail                |
| Protection class   | IP20                    |

## Mechanical stability

|                         |   |
|-------------------------|---|
| IEC 60068-2-6 vibration | 1 mm, 2 Hz-13.2 Hz, 90 min.; 0.7 g, 13.2 Hz-100 Hz, 90 min.; 3.5 mm, 3 Hz-9 Hz, 10 cycles, 1 octave/min.; 1 g, 9 Hz-150 Hz, 10 cycles, 1 octave/min |
| IEC 60068-2-27 shock    | 15 g, 11 ms duration, 18 shocks   |

## EMC interference immunity

|  |  |
|--|--|
| EN 61000-4-2 electrostatic discharge (ESD) | 8 kV contact discharge, 15 kV air discharge  |
| EN 61000-4-3 electromagnetic field         | 35 V/m (80-2700 MHz); 1 kHz, 80% AM  |
| EN 61000-4-4 fast transients (burst)       | 4 kV power line, 4 kV data line  |
| EN 61000-4-5 surge voltage                 | power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line IEC61000-4-5: power line 5 kV (line/earth) |
| EN 61000-4-6 Conducted Immunity            | 3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)  |
| EN 61000-4-16 mains frequency voltage      | 30 V, 50 Hz continuous; 300 V, 50 Hz 1 s   |

## EMC emitted immunity

|          |                  |
|----------|------------------|
| EN 55032 | EN 55032 Class A |
|----------|------------------|

## Approvals

|  |                  |
|--|------------------|
| Basis Standard                         | CE, FCC, EN61131 |
| Safety of industrial control equipment | cUL508           |

## Reliability

|           |   |
|-----------|---|
| Guarantee | 60 months (please refer to the terms of guarantee for detailed information) |
|-----------|---|

## Scope of delivery and accessories

|                   |   |
|-------------------|---|
| Accessories       | Rail power supply RPS 30, RPS 80 EEC, RPS 120 EEC, terminal cable, network management Industrial HiVision, auto-configuration adapter ACA31, 19" installation frame |
| Scope of delivery | Device, terminal blocks, General safety instructions  |

## Further Instructions

|                       |   |
|-----------------------|---|
| Product Documentation | <a href="https://www.doc.hirschmann.com/index.html">https://www.doc.hirschmann.com/index.html</a>                         |
| Certificates          | <a href="https://www.doc.hirschmann.com/certificates.html">https://www.doc.hirschmann.com/certificates.html</a>           |
| Software Download     | <a href="https://hirschmann-support.belden.com/en-US/downloads">https://hirschmann-support.belden.com/en-US/downloads</a> |

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