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RSP Managed Industrial Ethernet Switch with Fanless Design

Fast and Gigabit Ethernet Networks

The new RSP family of switches with robust hardware and a powerful operating system, are able to withstand extremely harsh environmental conditions. For the first time, the integration of new redundancy protocols allows uninterrupted data communication. These new techniques, PRP (Parallel Redundancy Protocol) and HSR (High–availability Seamless Redundancy), are based on the international IEC 62439 standard and therefore guarantee future security and interoperability. Precision time synchronization in accordance with IEEE 1588v2, synchronizes sensors, drives, and measuring equipment. Gigabit Ethernet provides for a fast connection to the backbone, while connections to terminal equipment use 100Base-TX – either alone or in combination with 100Base-FX.
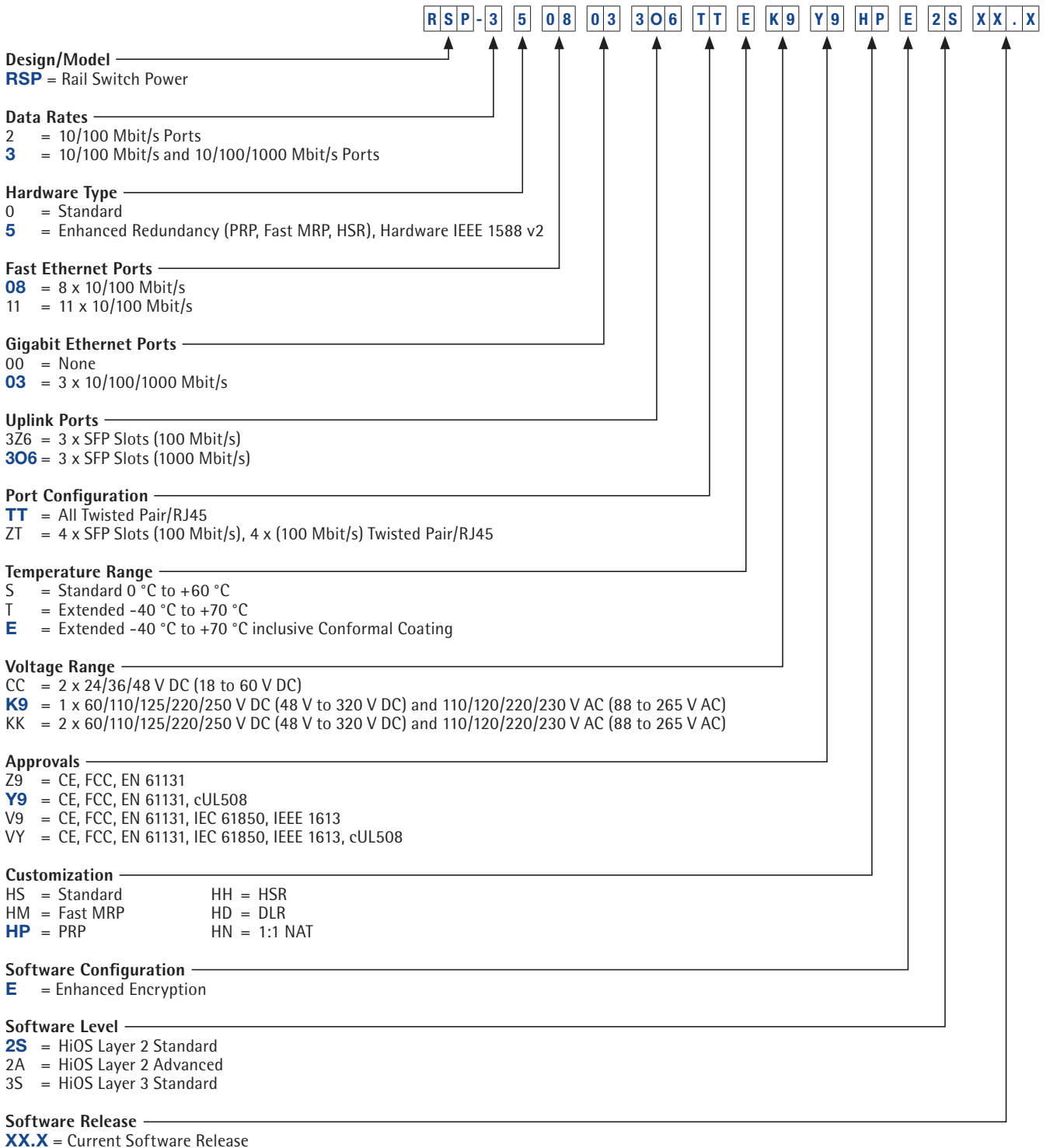
Technical Information

Product Description		
Type	RSP Series Standard Temperature	RSP Series Extended Temperature
Available Ports	11	
Enhanced Redundancy Functions	Fast MRP, HSR, PRP, DLR (variant dependent)	
Construction		
Mounting	DIN Rail	
Protection Class	IP30	
Dimensions (W x H x D)	90 x 164 x 120 mm	98 x 164 x 120 mm
Weight	1.2 kg	1.5 kg
Ambient Conditions		
Operating Temperature	0 °C to +60 °C, -40 °C to +70 °C, or -40 °C to +70 °C (inclusive Conformal Coating), IEC 60068-2-2 Dry Heat Test +85°C 16 Hours	
Storage/Transport Temperature	-40 °C to +85 °C	
Relative Humidity (non-condensing)	10% to 95%	
Conformal Coating	Yes (variant dependent)	
Interfaces		
V.24 Interface	1 x RJ11 socket	
USB Interface	1 x to connect auto-configuration adapter ACA31 (SD-card)	
Software		
Supported HiOS Software Levels	Layer 2 Standard (L2S), Layer 2 Advanced (L2A), Layer 3 Standard (L3S)	
Power Requirements		
Operating Voltage	24 - 48 V DC redundant, or 60 - 250 V DC and 110 - 230 V AC	
PoE (802.3af) Ports Supported	n/a	
PoE Plus (802.3at) Ports Supported	n/a	
Regulatory Approvals		
Safety of Industrial Control Equipment	cUL508	
Hazardous Locations	IECEx, ISA12.12.01 Class 1 Div. 2 Group A, B, C, D, ATEX 100a Zone 2	
Ship	Germanischer Lloyd GL (pending)	
Transportation	NEMA TS2	
Railway (norm)	EN 50121-4	
Substation	IEC 61850-3, IEEE 1613	
Reliability		
MTBF Range	www.hirschmann.com	
Warranty	5 years standard	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

RSP Series Managed Industrial DIN Rail Switch Configurations

Fast and Gigabit Ethernet Networks

| R | S | P | - | 3 | 5 | 08 | 03 | 3O6 | TT | E | K9 | Y9 | HP | E | 2S | XX.X |

Design/Model
RSP = Rail Switch Power

Data Rates
2 = 10/100 Mbit/s Ports
3 = 10/100 Mbit/s and 10/100/1000 Mbit/s Ports

Hardware Type
0 = Standard
5 = Enhanced Redundancy (PRP, Fast MRP, HSR), Hardware IEEE 1588 v2

Fast Ethernet Ports
08 = 8 x 10/100 Mbit/s
11 = 11 x 10/100 Mbit/s

Gigabit Ethernet Ports
00 = None
03 = 3 x 10/100/1000 Mbit/s

Uplink Ports
3Z6 = 3 x SFP Slots (100 Mbit/s)
3O6 = 3 x SFP Slots (1000 Mbit/s)

Port Configuration
TT = All Twisted Pair/RJ45
ZT = 4 x SFP Slots (100 Mbit/s), 4 x (100 Mbit/s) Twisted Pair/RJ45

Temperature Range
S = Standard 0 °C to +60 °C
T = Extended –40 °C to +70 °C
E = Extended –40 °C to +70 °C inclusive Conformal Coating

Voltage Range
CC = 2 x 24/36/48 V DC (18 to 60 V DC)
K9 = 1 x 60/110/125/220/250 V DC (48 V to 320 V DC) and 110/120/220/230 V AC (88 to 265 V AC)
KK = 2 x 60/110/125/220/250 V DC (48 V to 320 V DC) and 110/120/220/230 V AC (88 to 265 V AC)

Approvals
Z9 = CE, FCC, EN 61131
Y9 = CE, FCC, EN 61131, cUL508
V9 = CE, FCC, EN 61131, IEC 61850, IEEE 1613
VY = CE, FCC, EN 61131, IEC 61850, IEEE 1613, cUL508

Customization
HS = Standard   HH = HSR
HM = Fast MRP   HD = DLR
HP = PRP   HN = 1:1 NAT

Software Configuration
E = Enhanced Encryption

Software Level
2S = HiOS Layer 2 Standard
2A = HiOS Layer 2 Advanced
3S = HiOS Layer 3 Standard

Software Release
XX.X = Current Software Release

NOTE: The part number categories (**Configuration** and **Software Release**) are optional.

RSPS-Smart Managed Industrial DIN Rail Switch with Fanless Design

Fast and Gigabit Ethernet Networks

The RSP-Smart features six Fast Ethernet ports designed for twisted-pair cables (100 BASE-TX), which can also be equipped with two/four SFP transceivers (100 BASE-FX). All ports support precise time synchronization compliant with IEEE 1588v2. Security mechanisms such as role based access protect against unauthorized access. MRP (Media Redundancy Protocol) and RSTP (Rapid Spanning Tree) redundancy methods ensure high network availability. Switch versions also available provide support for the PRP (Parallel Redundancy Protocol) and HSR (High-availability Seamless Redundancy) redundancy methods, ensuring zero switchover times. Power can be supplied via 24/36/48 V DC or alternatively via 110/250 V DC and 110/230 V AC. Other features of the RSP-Smart include IP30 protection rating, an extended operating temperature range from -40 °C to +70 °C, compact stainless steel housing and user-friendly configuration and diagnostics.
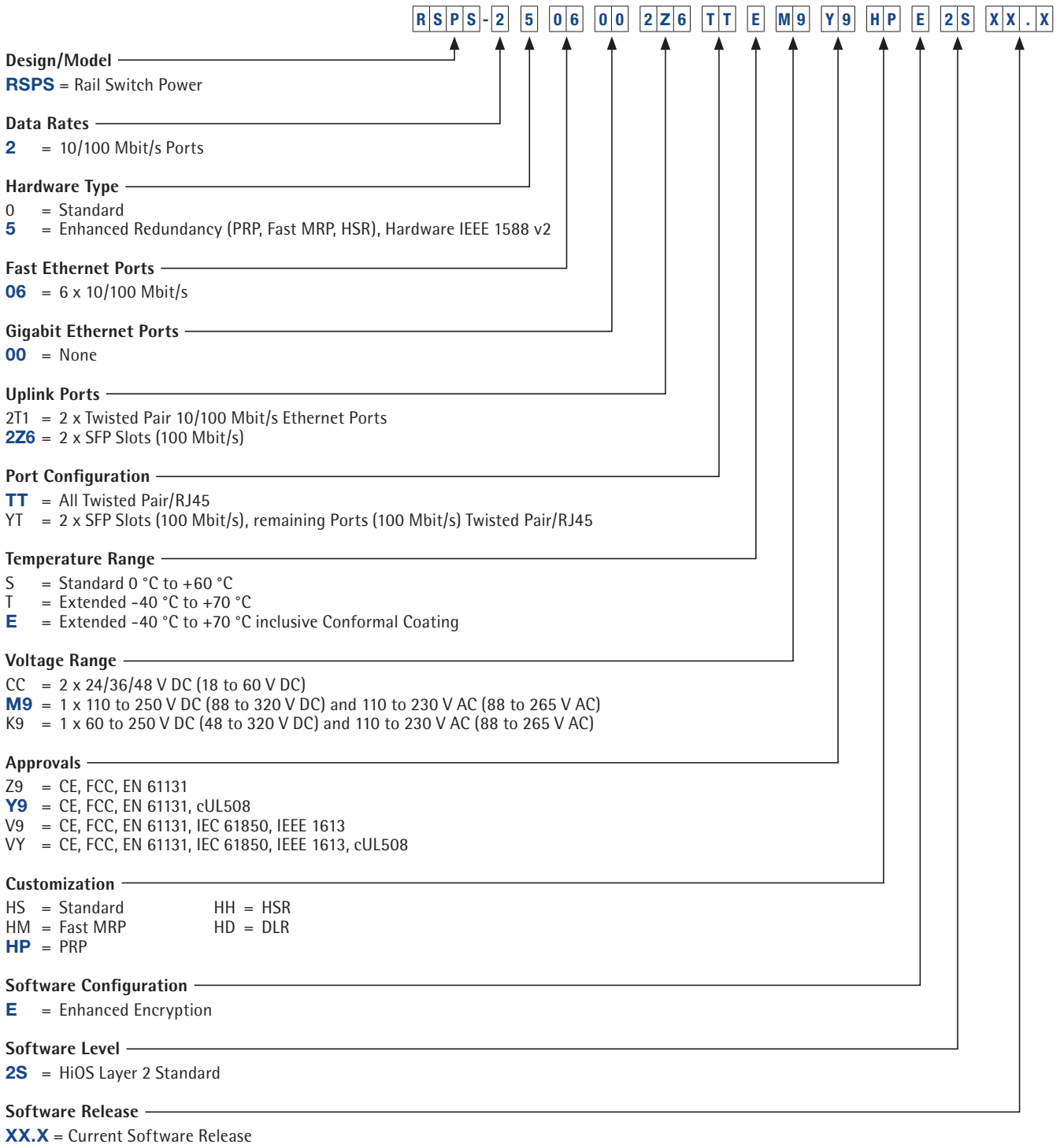
Technical Information

Product Description		
Type	RSPS20-xx Series	RSPS25-xx Series
Available Ports	Ports in total: 6; 6 x 10/100 TX, or 4 x 10/100 TX/2 x FE SFP, or 2 x 10/100 TX/4 x FE SFP Ports	
Enhanced Redundancy Functions	–	PRP, HSR
Construction		
Mounting	DIN Rail	
Protection Class	IP30	
Dimensions (W x H x D)	90 x 164 x 120 mm	
Weight	1.2 kg	
Ambient Conditions		
Operating Temperature	0 °C to +60 °C, or -40 °C to +70 °C, IEC 60068-2-2 Dry Heat Test +85°C 16 Hours	
Storage/Transport Temperature	-40 °C to +85 °C	
Relative Humidity (non-condensing)	10% to 95%	
Conformal Coating	Yes (variant dependent)	
Interfaces		
V.24 Interface	1 x RJ11 socket	
SD Interface	1 x to connect auto-configuration adapter ACA31 (SD-card)	
Software		
Supported HiOS Software Levels	Layer 2 Standard (L2S)	
Power Requirements		
Operating Voltage	24 to 48 V DC redundant, or 60 to 250 V DC and 110 to 230 V AC	
PoE (802.3af) Ports Supported	n/a	
PoE Plus (802.3at) Ports Supported	n/a	
Regulatory Approvals		
Safety	EN 60950-1, cUL508	
Hazardous Locations	n/a	
Ship	n/a	
Transportation	NEMA TS2	
Railway (norm)	EN 50121-4	
Substation	IEC 61850-3, IEEE 1613	
Reliability		
MTBF Range	www.hirschmann.com	
Warranty	5 years standard	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

RSPS-Smart Managed Industrial DIN Rail Switch Configurations

Fast Ethernet Networks

`R S P S - 2` `5` `0 6` `0 0` `2 Z 6` `T T` `E` `M 9` `Y 9` `H P` `E` `2 S` `X X . X`

Design/Model
RSPS = Rail Switch Power

Data Rates
2 = 10/100 Mbit/s Ports

Hardware Type
0 = Standard
5 = Enhanced Redundancy (PRP, Fast MRP, HSR), Hardware IEEE 1588 v2

Fast Ethernet Ports
06 = 6 x 10/100 Mbit/s

Gigabit Ethernet Ports
00 = None

Uplink Ports
2T1 = 2 x Twisted Pair 10/100 Mbit/s Ethernet Ports
2Z6 = 2 x SFP Slots (100 Mbit/s)

Port Configuration
TT = All Twisted Pair/RJ45
YT = 2 x SFP Slots (100 Mbit/s), remaining Ports (100 Mbit/s) Twisted Pair/RJ45

Temperature Range
S = Standard 0 °C to +60 °C
T = Extended –40 °C to +70 °C
E = Extended –40 °C to +70 °C inclusive Conformal Coating

Voltage Range
CC = 2 x 24/36/48 V DC (18 to 60 V DC)
M9 = 1 x 110 to 250 V DC (88 to 320 V DC) and 110 to 230 V AC (88 to 265 V AC)
K9 = 1 x 60 to 250 V DC (48 to 320 V DC) and 110 to 230 V AC (88 to 265 V AC)

Approvals
Z9 = CE, FCC, EN 61131
Y9 = CE, FCC, EN 61131, cUL508
V9 = CE, FCC, EN 61131, IEC 61850, IEEE 1613
VY = CE, FCC, EN 61131, IEC 61850, IEEE 1613, cUL508

Customization
HS = Standard   HH = HSR
HM = Fast MRP   HD = DLR
HP = PRP

Software Configuration
E = Enhanced Encryption

Software Level
2S = HiOS Layer 2 Standard

Software Release
XX.X = Current Software Release

NOTE: The part number categories (**Configuration** and **Software Release**) are optional.

RSPL-Lite Managed Industrial Ethernet Switch with Fanless Design

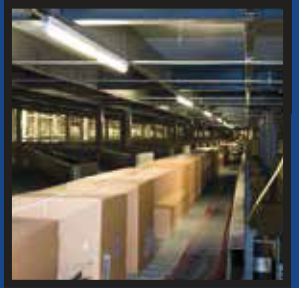### Fast and Gigabit Ethernet Networks

RSPL-Lite switches from Hirschmann offer eight Fast Ethernet ports and optionally, 2 Gigabit Combo Ports. The FE ports can be configured either with two SFP slots and six 100 BASE-TX or a combination of four SFP transceivers and four TX ports. The RSPL-Lite switches offer all-round carefree package for the highest level of security while insuring increased productivity and profitability. The switches feature comprehensive security functions like MAC-based port security, Authentication (IEEE 802.1x), different privilege levels, management authentication via RADIUS, account locking, configurable password policy, audit trail, configurable login attempts, HTTPS certificate management, DoS prevention to provide all-round protection against network attacks.
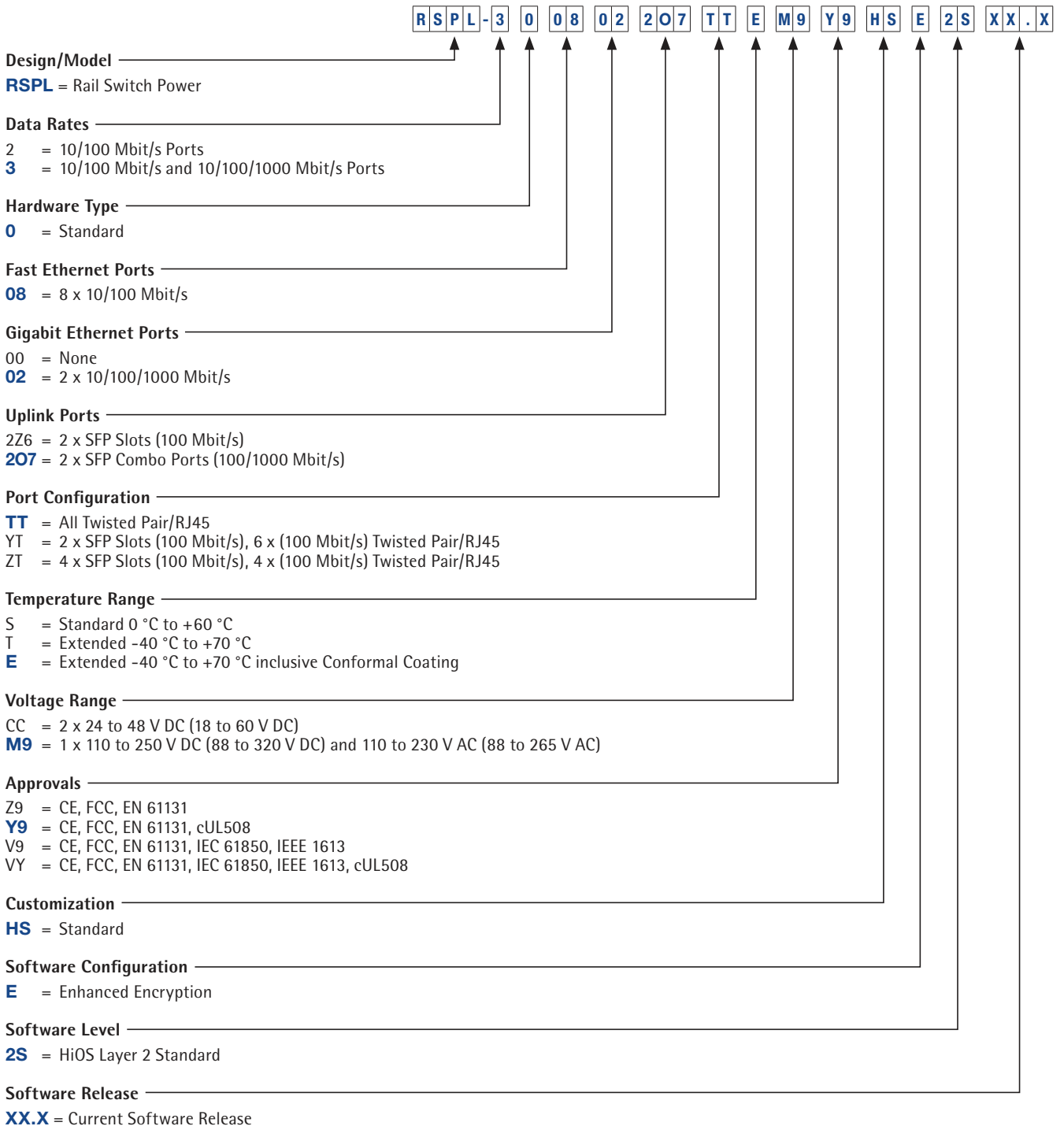
Technical Information

Product Description		
Type	RSPL20-xx Series	RSPL30-xx Series
Available Ports	Ports in total: 8; 4 x 10/100 TX/4 x FE SFP, or 6 x 10/100 TX/2 x FE SFP ports	Ports in total: 10; 2 x GE Combo ports and 4 x 10/100 TX/4 x FE SFP, or 2 x GE Combo ports and 6 x 10/100 TX/2 x FE SFP ports
Construction		
Mounting	DIN Rail	
Protection Class	IP30	
Dimensions (W x H x D)	90 x 164 x 120 mm	118 x 164 x 120 mm
Weight	1.0 kg	1.2 kg
Ambient Conditions		
Operating Temperature	0 °C to +60 °C, or -40 °C to +70 °C, IEC 60068-2-2 Dry Heat Test +85°C 16 Hours	
Storage/Transport Temperature	-40 °C to +85 °C	
Relative Humidity (non-condensing)	10% to 95%	
Conformal Coating	Yes (variant dependent)	
Interfaces		
V.24 Interface	1 x RJ11 socket	
SD Interface	1 x to connect auto-configuration adapter ACA31 (SD-card)	
Software		
Supported HiOS Software Levels	Layer 2 Standard (L2S)	
Power Requirements		
Operating Voltage	24 to 48 V DC redundant, or 110 to 250 V DC and 110 to 230 V AC	
PoE (802.3af) Ports Supported	n/a	
PoE Plus (802.3at) Ports Supported	n/a	
Regulatory Approvals		
Safety	EN 60950-1, cUL508	
Hazardous Locations	n/a	
Ship	n/a	
Transportation	NEMA TS2	
Railway (norm)	EN 50121-4	
Substation	IEC 61850-3, IEEE 1613	
Reliability		
MTBF Range	www.hirschmann.com	
Warranty	5 years standard	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com
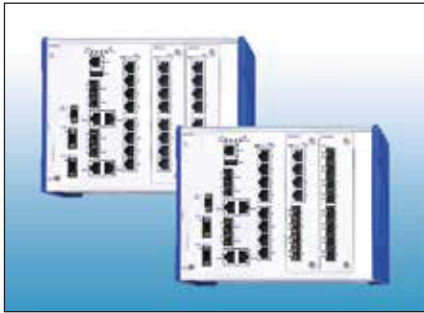
RSPL-Lite Managed Industrial Ethernet Switch Configurations

Fast and Gigabit Ethernet Networks

`RSPL` - `3` `0` `08` `02` `2O7` `TT` `E` `M9` `Y9` `HS` `E` `2S` `XX` . `X`

Design/Model
RSPL = Rail Switch Power

Data Rates
2 = 10/100 Mbit/s Ports
3 = 10/100 Mbit/s and 10/100/1000 Mbit/s Ports

Hardware Type
0 = Standard

Fast Ethernet Ports
08 = 8 x 10/100 Mbit/s

Gigabit Ethernet Ports
00 = None
02 = 2 x 10/100/1000 Mbit/s

Uplink Ports
2Z6 = 2 x SFP Slots (100 Mbit/s)
2O7 = 2 x SFP Combo Ports (100/1000 Mbit/s)

Port Configuration
TT = All Twisted Pair/RJ45
YT = 2 x SFP Slots (100 Mbit/s), 6 x (100 Mbit/s) Twisted Pair/RJ45
ZT = 4 x SFP Slots (100 Mbit/s), 4 x (100 Mbit/s) Twisted Pair/RJ45

Temperature Range
S = Standard 0 °C to +60 °C
T = Extended –40 °C to +70 °C
E = Extended –40 °C to +70 °C inclusive Conformal Coating

Voltage Range
CC = 2 x 24 to 48 V DC (18 to 60 V DC)
M9 = 1 x 110 to 250 V DC (88 to 320 V DC) and 110 to 230 V AC (88 to 265 V AC)

Approvals
Z9 = CE, FCC, EN 61131
Y9 = CE, FCC, EN 61131, cUL508
V9 = CE, FCC, EN 61131, IEC 61850, IEEE 1613
VY = CE, FCC, EN 61131, IEC 61850, IEEE 1613, cUL508

Customization
HS = Standard

Software Configuration
E = Enhanced Encryption

Software Level
2S = HiOS Layer 2 Standard

Software Release
XX.X = Current Software Release

NOTE: The part number categories (**Configuration** and **Software Release**) are optional.

RSPE – Expandable Managed Industrial DIN Rail Switch with Fanless Design

Fast and Gigabit Ethernet Networks

The compact and extremely robust RSPE switches comprise a basic device with eight twisted pair ports and four combination ports that support Fast Ethernet or Gigabit Ethernet. The basic device – optionally available with the HSR (High-availability Seamless Redundancy) and PRP (Parallel Redundancy Protocol) uninterruptible redundancy protocols, plus precise time synchronization in accordance with IEEE 1588 v2 – can be extended to provide up to 28 ports by adding two media modules. Different combinations of copper or fiber ports (plus PoE/PoE+) can be selected depending on the module type.

The RSPE switches also provide comprehensive management, diagnostic and filtering features, as well as numerous redundancy methods, bringing all-around security to your network. The Layer 3 version offers full wired speed IPv4 routing with lowest latency.

Further features include an extended operating temperature range from -40 °C to +70 °C, high vibration resistance and broad immunity to electrostatic discharges.

Technical Information

Product Description		
Type	RSPE30-xx, RSPE32-xx	RSPE35-xx, RSPE37-xx
Description	Modular Managed Industrial Switch DIN Rail, fanless design	
Port Type and Quantity	Ports in total up to 28, Basic unit: 4 x FE/GE Combo ports plus 8 FE TX ports, expandable with two slots for media modules with 8 FE ports each	
Number of Fiber Ports	16 fiber ports: 4 GE/FE basic unit plus 12 FE with media modules	
Power over Ethernet (PoE)	PoE, PoE+ option with up to 24 Ports and 120 Watts	
Construction		
Mounting	DIN Rail	
Protection Class	IP30	
Dimensions (W x H x D)	209 (217) x 164 x 120 mm (EEC)	
Weight	2.2 kg; 2.5 kg EEC, plus media modules	
Power Requirements		
Operating Voltage	24 to 48 V DC redundant, or 60 to 250 V DC and 110 to 230 V AC optional redundant, PoE/PoE+ with 48/54 V DC	
Power Consumption	maximum 34 W plus PoE	maximum 36 W plus PoE
Interfaces		
V.24 Interface	1 x RJ11 socket	
USB and SD Card Slot	1 x to connect auto-configuration adapter ACA22 (USB) or ACA31 (SD-card)	
Software		
Supported HiOS Software Levels	Layer 2 Standard (L2S), Layer 2 Advanced (L2A) or Layer 3 Standard (L3S)	

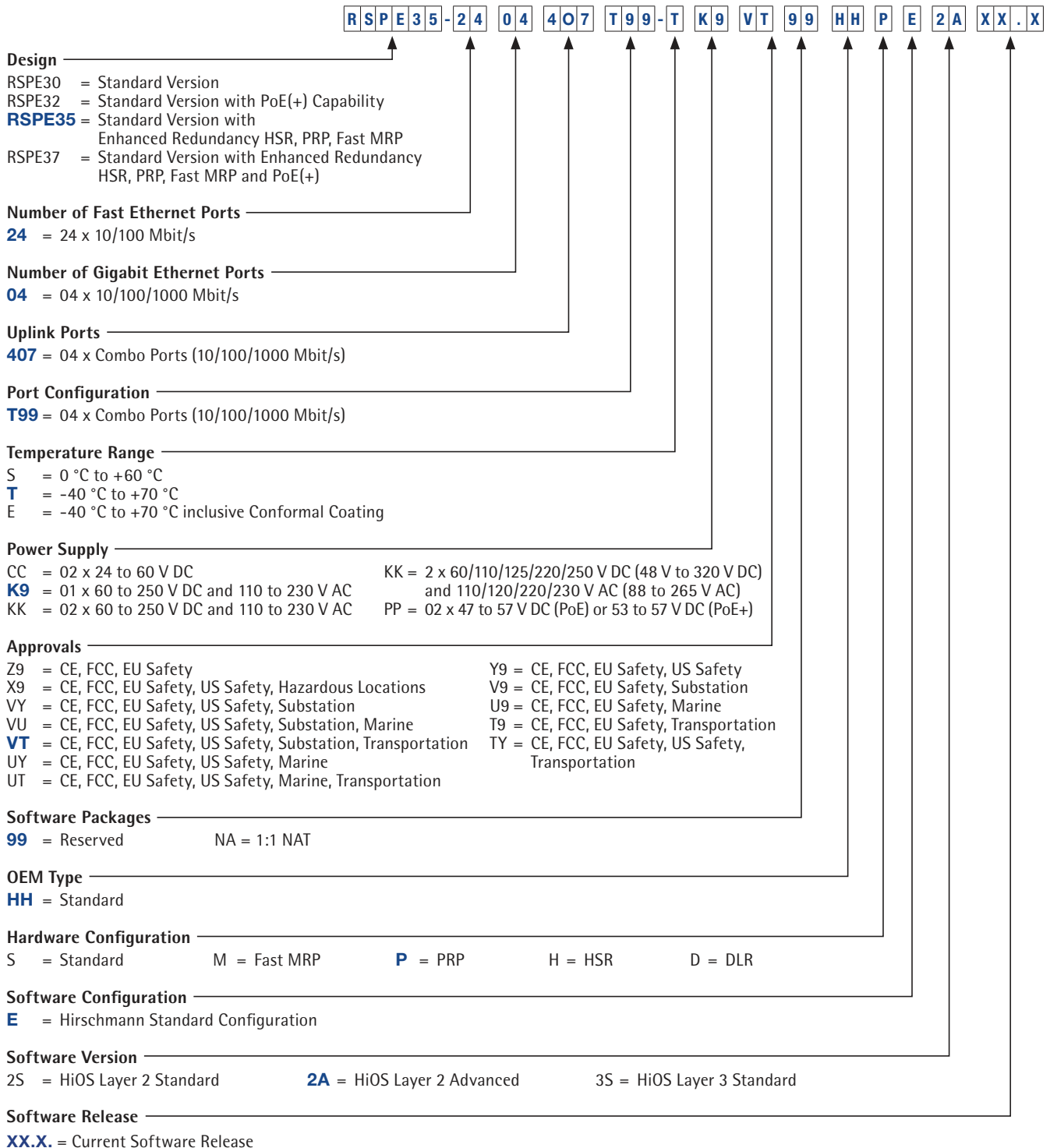**NOTE:** These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

Technical Information

Product Description Media Modules for RSPE			
Type	RSPM20-4Z64Z6xx	RSPM20-4T14Z6xx RSPM22-4T14Z6xx (PoE type)	RSPM20-4T14T1xx RSPM22-4T14T1xx (PoE type)
Port Type and Quantity	8 FE SFP slots	4 FE SFP slots / 4 FE TX ports (PoE option)	8 FE TX ports (PoE option)
Weight	290 g	220 g	130 g

Common Technical Data Basic Units and Media Modules	
Type	RSPE30, RSPE32, RSPE35, RSPE37, RSPM20, RSPM22
Gigabit ETHERNET Network Size	
Twisted Pair (TP)	0 to 100 m
Multimode Fiber (MM) 50/125 µm	0 to 550 m, 7.5 dB link budget; 62.5/125 µm 0 to 275 m, 7.5 dB link budget (with M-SFP-SX/LC)
Singlemode Fiber (SM) 9/125 µm	0 to 20 km, 11 dB link budget (with M-SFP-LX/LC); 14 to 42 km, 5 to 20 dB link budget (with M-SFP-LX+/LC)
Singlemode Fiber (LH) 9/125 µm	23 to 80 km, 5 to 22 dB link budget (with M-SFP-LH/LC); 71 to 128 km, 15 to 30 dB link budget (with M-SFP-LH+/LC)
Fast ETHERNET Network Size	
Twisted Pair (TP)	0 to 100 m
Multimode Fiber (MM) 50/125 µm	0 to 5000 m, 8 dB link budget; 62.5/125 µm, 0 to 4000 m, 11 dB link budget (with M-Fast SFP-MM/LC)
Singlemode Fiber (SM) 9/125 µm	0 to 25 km, 13 dB link budget (with M-Fast SFP-SM/LC); 25 to 65 km, 10 to 29 dB link budget (with M-Fast SFP-SM+/LC)
Singlemode Fiber (LH) 9/125 µm	47 to 104 km, 10 to 29 dB link budget (with M-Fast SFP-LH/LC)
Network Size – Cascadibility	
Line-/star Topology	Any
Ring Structure	>200 switches MRP
Fault Recovery Time	0ms with PRP or HSR
Ambient Conditions	
Operating Temperature	0 °C to +60 °C, or -40 °C to +70 °C, IEC 60068-2-2 Dry Heat Test +85 °C 16 Hours, optional Conformal Coating
Storage/Transport Temperature	-40 °C to +85 °C
Relative Humidity (non-condensing)	5% to 95%
Approvals Configurable	
Safety of Industrial Control Equipment	EN 60950-1, EN 61131-2 , UL61010-1/-2-201
Substation	IEC 61850-3, IEEE 1613
Ship	GL – Germanischer Lloyd (pending)
Hazardous Locations	IECEx, ISA12.12.01 Class 1 Div. 2 Group A, B, C, D, ATEX 100a Zone 2
Transportation	NEMA TS2, EN 50121-4
Scope of Delivery and Accessories	
Device Replacement and Logging	ACA31 (SD card) 942 074-001, ACA22-USB EEC 942 124-001
Empty Module Slot Cover	RSPM-cover: Order No. 942 131-001
Reliability	
Warranty	5 years (standard)

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

RSPE Switch Configurations

`RSPE35-24 04 4O7 T99-T K9 VT 99 HH P E 2A XX.X`

Design
RSPE30 = Standard Version
RSPE32 = Standard Version with PoE(+) Capability
RSPE35 = Standard Version with
Enhanced Redundancy HSR, PRP, Fast MRP
RSPE37 = Standard Version with Enhanced Redundancy
HSR, PRP, Fast MRP and PoE(+)

Number of Fast Ethernet Ports
24 = 24 x 10/100 Mbit/s

Number of Gigabit Ethernet Ports
04 = 04 x 10/100/1000 Mbit/s

Uplink Ports
407 = 04 x Combo Ports (10/100/1000 Mbit/s)

Port Configuration
T99 = 04 x Combo Ports (10/100/1000 Mbit/s)

Temperature Range
S = 0 °C to +60 °C
T = -40 °C to +70 °C
E = -40 °C to +70 °C inclusive Conformal Coating

Power Supply
CC = 02 x 24 to 60 V DC
K9 = 01 x 60 to 250 V DC and 110 to 230 V AC
KK = 02 x 60 to 250 V DC and 110 to 230 V AC

KK = 2 x 60/110/125/220/250 V DC (48 V to 320 V DC)
and 110/120/220/230 V AC (88 to 265 V AC)
PP = 02 x 47 to 57 V DC (PoE) or 53 to 57 V DC (PoE+)

Approvals
Z9 = CE, FCC, EU Safety
X9 = CE, FCC, EU Safety, US Safety, Hazardous Locations
VY = CE, FCC, EU Safety, US Safety, Substation
VU = CE, FCC, EU Safety, US Safety, Substation, Marine
VT = CE, FCC, EU Safety, US Safety, Substation, Transportation
UY = CE, FCC, EU Safety, US Safety, Marine
UT = CE, FCC, EU Safety, US Safety, Marine, Transportation

Y9 = CE, FCC, EU Safety, US Safety
V9 = CE, FCC, EU Safety, Substation
U9 = CE, FCC, EU Safety, Marine
T9 = CE, FCC, EU Safety, Transportation
TY = CE, FCC, EU Safety, US Safety,
Transportation

Software Packages
99 = Reserved   NA = 1:1 NAT

OEM Type
HH = Standard

Hardware Configuration
S = Standard   M = Fast MRP   **P** = PRP   H = HSR   D = DLR

Software Configuration
E = Hirschmann Standard Configuration

Software Version
2S = HiOS Layer 2 Standard   **2A** = HiOS Layer 2 Advanced   3S = HiOS Layer 3 Standard

Software Release
XX.X = Current Software Release

NOTE: The last four categories (**OEM type, configurations, software version** and **software release**) are optional.

RSPM Media Module Configurations

RSPM22-**4T1** **4T1**-**T** **Z9** **HH** **S** **E** **XX**.**X**

Design

RSPM20 = Standard Version
RSPM22 = Standard Version with PoE(+) Capability

Port Configuration A

4Z6 = 4 x SFP Slot (100 Mbit/s)
4T1 = 4 x (100 Mbit/s) Twisted Pair (TX)/RJ45

Port Configuration B

4Z6 = 4 x SFP Slot (100 Mbit/s)
4T1 = 4 x (100 Mbit/s) Twisted Pair (TX)/RJ45

Temperature Range

S = 0 °C to +60 °C
T = –40 °C to +70 °C
E = –40 °C to +70 °C inclusive Conformal Coating

Approvals

Z9 = CE, FCC, EU Safety
Y9 = CE, FCC, EU Safety, US Safety
X9 = CE, FCC, EU Safety, US Safety, Hazardous Locations
V9 = CE, FCC, EU Safety, Substation
VY = CE, FCC, EU Safety, US Safety, Substation
VU = CE, FCC, EU Safety, US Safety, Substation, Marine
VT = CE, FCC, EU Safety, US Safety, Substation, Transportation
U9 = CE, FCC, EU Safety, Marine
UY = CE, FCC, EU Safety, US Safety, Marine
UT = CE, FCC, EU Safety, US Safety, Marine, Transportation
T9 = CE, FCC, EU Safety, Transportation
TY = CE, FCC, EU Safety, US Safety, Transportation

OEM Type

HH = Customization

Hardware Configuration

S = Standard

Software Configuration

E = Entry (without configuration)

Software Release

XX.X = Current Software Release
99.9 = No Software Release

NOTE: The last four categories (**OEM type, hardware configuration, software configuration** and **software release**) are optional.

HIRSCHMANN
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RSR Series Über-Rugged™
Managed DIN Rail Mount Ethernet Switches

Fast Ethernet Uplink Ports and Gigabit Ethernet Uplink Ports

RSR series switches are available with optional Gigabit ports and an extended temperature range of -40 °C to +85 °C. Ultra-fast ring recovery times under 10 ms are possible using HIPER-Ring redundancy protocol and the switch's robust metal housing offers extended RFI/EMI and vibration immunity.

The term "Über-Rugged" is the only way to describe a switch that goes above and beyond the already rugged capabilities of Hirschmann switches by being able to provide maximum uptime in extreme environmental conditions.

Technical Information

Product Description		
Type	RSR20 Series	RSR30 Series
Available Ports	8 to 9	9 to 10
Construction		
Mounting	DIN Rail	
Protection Class	IP30	
Dimensions (W x H x D)	120 x 145 x 115 mm	
Weight	appr. 1 kg	
Ambient Conditions		
Operating Temperature	0 °C to +60 °C, -40 °C to +85 °C, or -40 °C to +85 °C (optional Conformal Coating)	
Storage/Transport Temperature	-40 °C to +85 °C	
Relative Humidity (non-condensing)	10% to 95%	
Conformal Coating	Yes (variant dependent)	
Interfaces		
V.24 Interface	1 x RJ11 socket	
USB Interface	1 x USB (ACA21-USB adapter)	
Software		
Supported Classic Software Levels	Layer 2 Professional (L2P)	
Power Requirements		
Operating Voltage	24/36/48 V DC or 60/120/250 V DC, 110/230 V AC	
PoE (802.3af) Ports Supported	n/a	
PoE Plus (802.3at) Ports Supported	n/a	
Regulatory Approvals		
Safety of Industrial Control Equipment	cUL508	
Hazardous Locations	Class 1 Div 2 (cUL1604)	
Ship	Germanischer Lloyd	
Transportation	NEMA TS2	
Railway (norm)	EN 50121-4	
Substation	IEC 61850-3, IEEE 1613	
Reliability		
MTBF Range	45.6 to 61.8 years	49.2 to 57.9 years
Warranty	5 years standard	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com