




SPIDER III Premium Line Switches

Robust, Customizable Unmanaged Fast/Gigabit Ethernet Switches

With many advanced features, these switches can reliably transmit data across long distances, while still remaining cost-effective. They also meet many required industry-specific standards to enable their use cross many industries.

-  **Easy to install and customize** for specific applications through a USB port and easy-to-use, free software tool.
-  **Withstands extreme industrial conditions** due to a wide range of temperatures and a ruggedized metal case with an optional protective coating.
-  **Meets many required standards** for a variety of industrial markets, including process automation, transportation and marine applications.

Key Features

- Flexible customization from 2 up to 26 ports
- Deploys in harsh environments, including temperature ranges from -40 °C to +70 °C
- Installs quickly through a plug-in terminal block – no tools needed
- USB port configuration interface for greater customization of functions, including support of jumbo frames and support of Quality of Service (QoS) to prioritize network traffic
- Suitable for use at the field level or in smaller networks, where switch management is not needed
- Saves energy and costs during low-traffic periods with the low power feature
- Enhanced network security by disabling unused ports
- Fulfills PROFINET Conformance Class A requirements to set up PROFINET networks
- Certified for multiple industry standards and approvals



The SPIDER III Premium Line is designed to offer cost-effective, unmanaged switches with a robust set of customizable features to meet individual network needs across a variety of industries.

Be certain.
Belden.



Your Benefits

Configure to Your Needs

The Hirschmann SPIDER III Premium Line allows you to quickly and easily configure basic switching parameters through the device's USB interface and the Switch Programming Tool software – available for both Windows and Linux operating systems.

As an unmanaged switch, the SPIDER III Premium's plug-and-play nature makes installation easy and gets your networks up and running faster. For networks with unique needs, the switch can also be customized for any use case. Through the USB interface, you can also turn off unused ports to better secure the network and enable or disable the transmission of large data packets (jumbo frames) to increase network efficiency.

SPIDER III Premium Line switches not only offer the cost benefits that come with an unmanaged switch, but they also have the flexibility and ruggedness to support any industrial environment. With up to 26 available ports, you can select the port types that meet your application needs, including Fast Ethernet, Gigabit Ethernet and fiber optic ports. The ruggedized IP40 metal enclosure also protects the switches against harsh environments.

The switches are designed to regulate energy depending on network traffic through the Energy Efficient Ethernet standard. This low-power feature uses less energy when there is no data moving through the network, which ultimately saves you money.

Applications

These unmanaged switches meet many required industry-specific standards and are ideal for use in a variety of applications, such as:

- Harsh environments, particularly with temperature extremes
- Industries that require adherence to specific standards, certifications and approvals including:
 - Hazardous Locations: ISA-12.12.-01 and ATEX Class 2
 - Marine: Navy GL and DNV
 - Transportation: EN 50121-4
 - Road Vehicles: E1
- Markets in need of energy efficiency requirements

Markets

Process automation, transportation, marine, manufacturing, machine building, water and wastewater, automotive, solar power, traffic control systems.



The Hirschmann SPIDER III Premium Line switches utilize a USB interface that allows you to customize the switching parameters for your application.



Technical Information

Product Description	
Type	SPIDER III Premium Line Switches
Description	Unmanaged, Industrial ETHERNET Rail Switch, fanless design, store and forward switching mode
Port Type and Quantity	Up to 24 x FE or 8 x GE TX Ports, 3 x FE FX Ports, 2 x GE FX Ports
Interfaces	
Power Supply/Signaling Contact	1 x plug-in terminal block, 6-pin
USB Interface	1 x USB for configuration
Power Requirements	
Operating Voltage	12/24/48 V DC (9.6 to 32 V DC), 24 V AC, redundant
Current Consumption at 24 V DC	Max. 350 mA depending on the variant
Power Consumption	2.4 to 9.0 W depending on the variant
Service	
Diagnostics	LEDs (power, link status, data), alarm contact
Configurable Parameters	Global settings: power supply unit alarm, aging time, QoS 802.1p mapping, QoS DSCP mapping Port settings: flow control, port admin state, broadcast storm protection/threshold, multicast storm protection/threshold, QoS Trust Mode, port based priority, link alarm TX port settings: auto-negotiation, speed, duplex mode, auto-crossing, MDI state, energy efficient ethernet FX port settings: duplex mode
Ambient Conditions	
Operation Temperature	-40 °C to +70 °C
Storage/Transport Temperature	-40 °C to +85 °C
Relative Humidity (non-condensing)	10% to 95%
Protective Paint on PCB	Conformal coating
Mechanical Construction	
Dimensions (W x H x D)	39/49/56/60,5 x 135/164 x 117/121,5 mm (w/o terminal block) depending on the variant
Mounting	DIN Rail
Weight	400 g to 1140 g depending on the variant
Protection Class	IP40
Mechanical Stability	
IEC 60068-2-27 Shock	15 g, 11 ms duration, 18 shocks
IEC 60068-2-6 Vibration	3.5 mm, 5 Hz to 8.4 Hz, 10 cycles, 1 octave/min. 1g, 8.4 Hz to 150 Hz, 10 cycles, 1 octave/min.
EMC Interference Immunity	
EN 61000-4-2 Electrostatic Discharge (ESD)	4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 Electromagnetic Field	10 V/m (80 to 1000 MHz)
EN 61000-4-4 Fast Transients (Burst)	2 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
EN 61000-4-6 Conducted Immunity	10 V (150 kHz to 80 MHz)
EMC Emitted Immunity	
FCC CFR47 Part 15	FCC CFR47 Part 15 Class A
EN 55022	EN 55022 Class A
Approvals	
Safety of Industrial Control Equipment	cUL 61010-1/61010-2-201
Hazardous Locations	ISA 12.12.01 Class 1 Div. 2, ATEX Class 2
Ship	Germanischer Lloyd, DNV
Railway	EN50121-4
Road Vehicles	E1

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

SPIDER III Premium Line Switch Configurations

S P I D E R - P L - 2 0 - 2 4 T 1 9 9 9 9 9 T Z 9 H H H H

Design

SPIDER PL-20 = Premium Line Fast Ethernet Ports
SPIDER PL-30 = Premium Line Fast and Gigabit Ethernet Ports
SPIDER PL-40 = Premium Line Gigabit Ethernet Ports

Number of Copper Ports

01T1 = 1 x Twisted-Pair, RJ45
04T1 = 4 x Twisted-Pair, RJ45
05T1 = 5 x Twisted-Pair, RJ45
06T1 = 6 x Twisted-Pair, RJ45
07T1 = 7 x Twisted-Pair, RJ45
08T1 = 8 x Twisted-Pair, RJ45
16T1 = 16 x Twisted-Pair, RJ45
24T1 = 24 x Twisted-Pair, RJ45

Type 1 Fiber Port

O6 = SFP Slot (100/1000 Mbit/s)
Z6 = SFP Slot (100 Mbit/s)
S2 = Singlemode, SC (100 Mbit/s)
M2 = Multimode, SC (100 Mbit/s)
M4 = Multimode, ST (100 Mbit/s)
99 = Empty

Type 2 Fiber Port

O6 = SFP Slot (100/1000 Mbit/s)
Z6 = SFP Slot (100 Mbit/s)
S2 = Singlemode, SC (100 Mbit/s)
M2 = Multimode, SC (100 Mbit/s)
99 = Empty

Type 3 Fiber Port

Z6 = SFP Slot (100 Mbit/s)
99 = Empty

Temperature Range

T = -40 °C to +70 °C
E = -40 °C to +70 °C inclusive Conformal Coating

Approvals

Z9 = CE, FCC, EN 61131, C-Tick (RCM)
Y9 = CE, FCC, EN 61131, C-Tick (RCM), cUL61010
X9 = CE, FCC, EN 61131, C-Tick (RCM), cUL61010, ISA12.12 Class 1 Div.2
W9 = CE, FCC, EN 61131, C-Tick (RCM), ATEX Zone 2
UY = CE, FCC, EN 61131, C-Tick (RCM), cUL61010, DNVGL
TY = CE, FCC, EN 61131, C-Tick (RCM), cUL61010, EN50121-4
R9 = CE, FCC, EN 61131, C-Tick (RCM), e1
WV = CE, FCC, EN 61131, C-Tick (RCM), cUL61010, ISA12.12 Class 1 Div.2, ATEX Zone 2, DNVGL, EN50121-4, e1
WW = CE, FCC, EN 61131, C-Tick (RCM), cUL61010, ISA12.12 Class 1 Div.2, ATEX Zone 2, IEC 61850-3, IEEE1613, DNVGL, EN50121-4

Customization

HK = Plug-in Terminal Block
HH = Standard

Configuration

HV = Extended Voltage Range: 12/24/48 V DC, 24 V AC
HH = Standard Voltage Range: 12/24 V DC