



HIRSCHMANN

A **BELDEN** BRAND

New Product Bulletin

NP 1034HE

Unmanaged SPIDER PD Switches

Flexible extension of networks with electrical and optical Fast Ethernet ports powered via PoE.



The Unmanaged SPIDER PD Switches From Hirschmann™ Can be Used Wherever a PoE Connection is Available. A Separate Power Supply Unit is Not Required.

Cost-effective Network Extension

Unmanaged Hirschmann™ SPIDER PD switches are available in three different versions. These facilitate the extension of networks in a flexible and cost-effective manner, since only a PoE connection is required to supply power. Additional ports can be made available quickly and easily and used for data transmission via either copper cables or fiberoptic uplinks suitable for single or multimode fiber optical cable. Thanks to the different versions, the switches can be used to implement either peripheral structured networks with short transmission distances to the various terminal devices or reliably span distances of up to 30 km – even powerful electromagnetic fields are no problem.

Space-saving in all Areas

The unmanaged SPIDER PD switches from Hirschmann™ can be used in a number of very different areas – for instance to network

automated systems in factories, processing plants, traffic control and building technology – since they are affected neither by arctic cold nor tropical heat. The switches also take up extremely little space and can easily be installed without any special IT knowledge. They can even be visualized using Industrial HiVision, the Hirschmann™ network management software.

The Advantages at a Glance

- Cost-effective solution for network expansion
- Extremely flexible
- A variety of media for data transmission
- Simple installation and deployment
- Visualization in network management software

**A new product to
serve your needs.
Be certain**



Unmanaged SPIDER PD Switches from Hirschmann™



The unmanaged SPIDER PD low-cost switches from Hirschmann™ facilitate optimum solutions for vastly diverse requirements.

The three new switches in the SPIDER PD range, which fulfill all relevant industrial standards and come with E13 approval for use in vehicles, support Fast Ethernet (10/100 Mbit/s). Depending on the version they have either five twisted pair ports or one twisted pair and one fiberoptic port for multimode or singlemode fiber optical cable. In each case the optical ports are designed for SC connectors and twisted pairs are designed for RJ45. Since all versions receive power via PoE, no separate power supply unit is required.

Other features include protection rating IP30, a sturdy metal housing and the extended temperature range -40° to +70°C. Thanks to their compact 100 x 25 x 70 mm housing (height x width x depth), they can also be used without any problem in distribution boxes. Information about their device and network status is displayed on LEDs on the front panel. The switches can also be visualized using the Hirschmann™ network management software Industrial HiVision.

Additional Information

All three SPIDER PD variants are, of course, compatible with all PoE switches marketed under the Hirschmann™ brand and are particularly well suited to those of type SPIDER II 8TX PoE.

Further technical details are contained in a data sheet that can be found on our website www.e-catalog.beldensolutions.com.

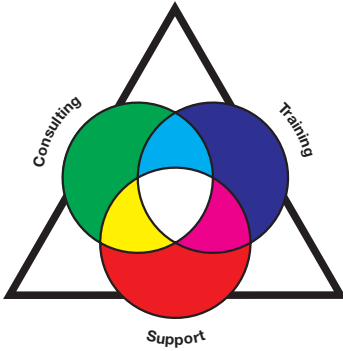
We recommend Belden's top quality industrial standard optical waveguides and screened CAT5e cables for connecting the SPIDER PD switches.

Further information about SPIDER PD switches can be found in the whitepaper "Power over Ethernet", which can be downloaded from www.beldensolutions.com.



Technical Information

Product Description			
Type	SPIDER 5TX PD EEC	SPIDER 1TX/1FX-MM PD EEC	SPIDER 1TX/1FX-SM PD EEC
Description	5 Port Switch with 5x10/100BaseTX Ports therefrom 1xPoE PD Port; enhanced environmental conditions	2 Port Switch with 1x10/100BaseTX PoE PD Port and 1x100BaseFX multimode SC port; enhanced environmental conditions	2 Port Switch with 1x10/100BaseTX PoE PD Port and 1x100BaseFX singlemode SC port; enhanced environmental conditions
Port Type and Quantity	5x10/100BASE-TX, 1xPoE according to IEEE802.3af, auto-crossing, auto-negotiation, auto-polarity	1x10/100BASE-TX, 1xPoE acc. to IEEE802.3af, 1xFX multimode SC port, auto-crossing, auto-negotiation, auto-polarity	1x10/100BASE-TX, 1xPoE acc. to IEEE802.3af, 1xFX singlemode SC port, auto-crossing, auto-negotiation, auto-polarity
Order-No.	942 051-001	942 051-002	942 051-003
More Interfaces			
Power Supply/Signaling Contact	PoE feeding, no signaling contact	PoE feeding, no signaling contact	PoE feeding, no signaling contact
Network Size – Length of Cable			
Twisted Pair (TP)	0 – 100 m	0 – 100 m	0 – 100 m
Multimode Fiber (MM) 50/125 µm	n/a	2 km	n/a
Multimode Fiber (MM) 62.5/125 µm	n/a	2 km	n/a
Single Mode Fiber (SM) 9/125 µm	n/a	n/a	30 km
Single Mode Fiber (LH) 9/125 µm (Long Haul Transceiver)	n/a	n/a	30 km
Power Requirements			
Operating Voltage	48 V DC (36 to 57 V DC, phantom power)	48 V DC (36 to 57 V DC, phantom power)	48 V DC (36 to 57 V DC, phantom power)
Current Consumption at 48 V DC	0.05 A, 2.4 W	0.048 A, 2.3 W	0.048 A, 2.3 W
Btu (IT)/h	8.194	7.853	7.853
Ambient Conditions			
Operating Temperature	-40°C to +70°C (0°F to 167°F)	-40°C to +70°C (0°F to 167°F)	-40°C to +70°C (0°F to 167°F)
Storage/Transport Temperature	-40°C to +85°C (-40°F to 185°F)	-40°C to +85°C (-40°F to 185°F)	-40°C to +85°C (-40°F to 185°F)
Relative Humidity (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
MTBF	401420 Hrs.	484156 Hrs.	484156 Hrs.
Mechanical Construction			
Dimensions (W x H x D)	100 x 25 x 70 mm	100 x 25 x 70 mm	100 x 25 x 70 mm
Mounting	DIN-Rail Design	DIN-Rail Design	DIN-Rail Design
Weight	198 g	171 g	171 g
Protection Class	IP-30, Metal with Aluminum shell	IP-30, Metal with Aluminum shell	IP-30, Metal with Aluminum shell
EMC Interference Immunity			
EN 61000-4-2 Electrostatic Discharge (ESD)	6 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 (linie/earth), 1 kV (linie/line), 1 kV data line		
EN 61000-4-6 Conducted Immunity	10 V (150 to 80 kHz)		
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 508		
EMV Regulations for Assembly in Vehicles	Approval according to automotive directive 2005/83/EG (E13)		
Employment in Vehicles	E13		
Scope of Delivery and Accessories			
Scope of Delivery	Device		
Accessories to Order Separately	SPIDER II 8TX PoE – Order-No. 942 008-001		



The Belden® Competence Center

Make sure you get an economical end-to-end solution for your network: In addition to its well-known products, Belden can also offer you a wide range of vendor-independent services. Whether it's consulting, training or support – at the Belden® Competence Center you can be certain of tailor-made service from a single supplier.

Whichever technology you use: our experts will support you all the way, from designing your network to optimizing the measures required in the operating phase. Up-to-date manufacturer's expertise, an international service network and fast access to external specialists guarantees you the best possible support. Bundle your individual service package today!

Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who are able to add value to your business. When it comes to signal transmissions, Belden is the number one solutions provider. We understand your business and want to know your specific challenges and targets to see how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our three leading brands, Belden®; Hirschmann™; and Lumberg Automation™, we are able to offer the solution you need. Today it may be a single cable, a switch or a connector, thus solving a specific issue; tomorrow it can be a complex range of integrated applications, systems and solutions.

We guarantee the superior performance of your mission-critical systems, even in the most demanding circumstances. If signal transmission is vital to your business, get in touch with the partner that delivers. Be certain. Belden.