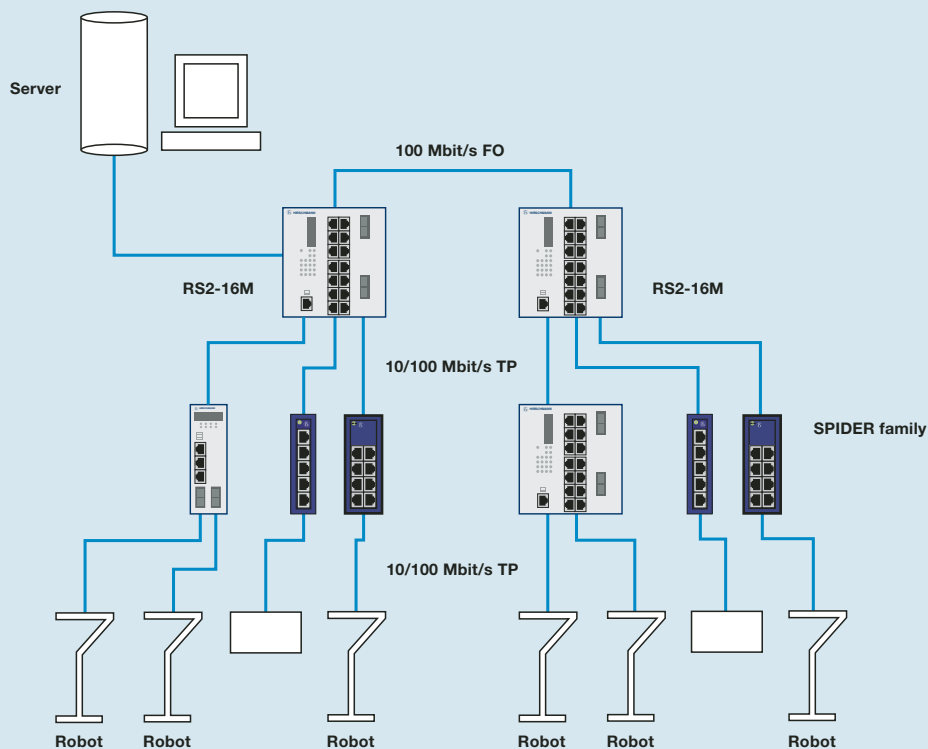# Hirschmann is now serving supersaver switches for every taste: the SPIDER family.

## Applications

The SPIDER family can be used in Industrial ETHERNET wherever terminals need to be implemented using a star or linear structure – or where a low-cost port expansion is required by managed systems or large networks. Use on process lines, in engineering or in plant manufacture, such as printing machinery. The

SPIDER 4TX/1FX features a fiber port for interference-free data transfer even over longer distances or in the toughest electrical conditions, such as directly mounted on powerful motors and other components, or parallel with power cables.

Server

100 Mbit/s FO

RS2-16M

RS2-16M

10/100 Mbit/s TP

SPIDER family

10/100 Mbit/s TP

Robot    Robot       Robot       Robot    Robot       Robot

## Product features

Extremely light and compact in design, the SPIDER family of switches can be mounted on DIN rails and meets all the requirements for problem-free deployment in industrial environments: IP 30 protection

with shock, vibration and temperature resistance, handling-friendly Plug & Play based on autonegotiation, autocrossing and autopolarity, and 24 V operation.

## For the whole SPIDER family

| Mechanical stability | |
|---|---|
| IEC 60068-2-27 shock | 15 g, 11 ms duration, 18 shocks |
| IEC 60068-2-6 vibration | 3.5 mm, 3 Hz – 9 Hz, 10 cycles, 1 octave/min.; |
| | 1 g, 9 Hz – 150 Hz, 10 cycles, 1 octave/min. |
| **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 – 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 – 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 (E175531) |
| **Scope of delivery and accessories** | |
| Scope of delivery | device, terminal block, operating manual |
| Accessories to order separately | Rail power supply RPS 30, RPS 60 or RPS 120, 19" installation frame |
| Service | Training, Support |

## Facts and figures SPIDER 5TX

| Product description | |
|---|---|
| Description | Entry Level Industrial ETHERNET Rail Switch, store and forward switching mode, ETHERNET (10 Mbit/s) and Fast-ETHERNET (100 Mbit/s) |
| Port type and quantity | 5 x 10/100Base-TX, TP cable, RJ 45 sockets, auto-crossing, auto-negotiation, auto-polarity |
| Type | SPIDER 5TX |
| Order No. | 943 824-002 |
| **More Interfaces** | |
| Power supply/signaling contact | 1 plug-in terminal block, 3-pin/no signal contact |
| **Network size – length of cable** | |
| Twisted pair (TP) | 0 – 100 m |
| **Network size – cascadibility** | |
| Line-/star topology | any |
| **Power requirements** | |
| Operating voltage | 9.6 V DC – 32 V DC |
| Current consumption at 24 V DC | max. 100 mA |
| **Service** | |
| Diagnostics | LEDs (power, link status, data, data rate) |
| **Ambient conditions** | |
| Operating temperature | 0 °C to + 60 °C |
| Storage/transport temperature | − 40 °C to + 70 °C |
| Relative humidity (non-condensing) | 10 % to 95 % |
| **Mechanical construction** | |
| Dimensions (W x H x D) | 25 mm x 114 mm x 79 mm |
| Mounting | DIN Rail 35 mm |
| Weight | 113 g |
| Protection class | IP 30 |



*As full-spec industrial switches, the SPIDER models offer impressive performance in tough practical applications, such as on printing machines, thanks to their shock, vibration and temperature resistance.*



*In engineering and plant manufacture, low-cost port expansion and terminal connection to Industrial ETHERNET is often key.*

## Facts and figures SPIDER 8TX

| Product description | |
|---|---|
| Description | Entry Level Industrial ETHERNET Rail Switch, store and forward switching mode, ETHERNET (10 Mbit/s) and Fast-ETHERNET (100 Mbit/s) |
| Port type and quantity | 8 x 10/100Base-TX, TP cable, RJ 45 sockets, auto-crossing, auto-negotiation, auto-polarity |
| Type | SPIDER 8TX |
| Order No. | 943 376-001 |
| **More Interfaces** | |
| Power supply/signaling contact | 1 plug-in terminal block, 3-pin/no signal contact |
| **Network size – length of cable** | |
| Twisted pair (TP) | 0 – 100 m |
| **Network size – cascadibility** | |
| Line-/star topology | any |
| **Power requirements** | |
| Operating voltage | 9.6 V DC – 32 V DC |
| Current consumption at 24 V DC | max. 160 mA |
| **Service** | |
| Diagnostics | LEDs (power, link status, data, data rate) |
| **Ambient conditions** | |
| Operating temperature | 0 °C to +60 °C |
| Storage/transport temperature | −40 °C to +70 °C |
| Relative humidity (non-condensing) | 10 % to 95 % |
| **Mechanical construction** | |
| Dimensions (W x H x D) | 40 mm x 114 mm x 79 mm |
| Mounting | DIN Rail 35 mm |
| Weight | 177 g |
| Protection class | IP 30 |

## Facts and figures SPIDER 4TX/1FX

| Product description | |
|---|---|
| Description | Entry Level Industrial ETHERNET Rail Switch, store and forward switching mode, ETHERNET (10 Mbit/s) and Fast-ETHERNET (100 Mbit/s) |
| Port type and quantity | 4 x 10/100Base-TX, TP cable, RJ45 sockets, auto-crossing, auto-negotiation, auto-polarity |
| | 1 x 100BASE-FX, MM cables, SC sockets |
| Type | SPIDER 4TX/1FX |
| Order No. | 943 221-001 |
| **More Interfaces** | |
| Power supply/signaling contact | 1 plug-in terminal block, 3-pin/no signal contact |
| **Network size – length of cable** | |
| Twisted pair (TP) | 0 – 100 m |
| Multimode fiber (MM) 50/125 µm | 0 – 5000 m, |
| | 8 dB link budget at 1300 nm, |
| | A = 1 dB/km, 3 dB reserve, B = 800 MHz x km |
| Multimode fiber (MM) 62.5/125 µm | 0 – 4000 m, |
| | 11 dB link budget at 1300 nm, |
| | A = 1 dB/km, 3 dB reserve, B = 500 MHz x km |
| **Network size – cascadibility** | |
| Line-/star topology | any |
| **Power requirements** | |
| Operating voltage | 9.6 V DC – 32 V DC |
| Current consumption at 24 V DC | max. 150 mA |
| **Service** | |
| Diagnostics | LEDs (power, link status, data, data rate) |
| **Ambient conditions** | |
| Operating temperature | 0 °C to +60 °C |
| Storage/transport temperature | −40 °C to +70 °C |
| Relative humidity (non-condensing) | 10 % to 95 % |
| **Mechanical construction** | |
| Dimensions (W x H x D) | 25 mm x 114 mm x 79 mm |
| Mounting | DIN Rail 35 mm |
| Weight | 120 g |
| Protection class | IP 30 |

# Save money on your network – but not the quality: the new SPIDER family.

SPIDER 4TX/1FX with four Twisted Pair ports plus one fiber port.

The SPIDER 8TX with eight 10/100 Mbit/s Twisted Pair ports for terminals or additional network segments.

The "tried and tested" SPIDER 5TX with five 10/100 Mbit/s Twisted Pair ports.

## Requirements and Solutions

The SPIDER switches deliver all the basics for rugged deployment in the entry-level segment. Industrial ETHERNET sometimes demands simple solutions – such as quick connections to terminal devices. Redundancy or manageable rail switches are just too costly in these situations. So Hirschmann has now expanded the SPIDER 5TX into a complete family. Presenting the new low-cost SPIDER 8TX and SPIDER 4TX/1FX – Industrial ETHERNET connection for 10 Mbit/s and 100 Mbit/s. The 8TX now offers more flexibility with 8 ports, and the 4TX/1FX provides fiber-optic connections based on its fiber port – ideal for use in environments subject to electromagnetic interference.

Hirschmann's industrial applications give high levels of flexibility and the new SPIDER family ensures we can offer full-spec industrial switches at office port prices – underpinned by renowned Hirschmann quality.

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